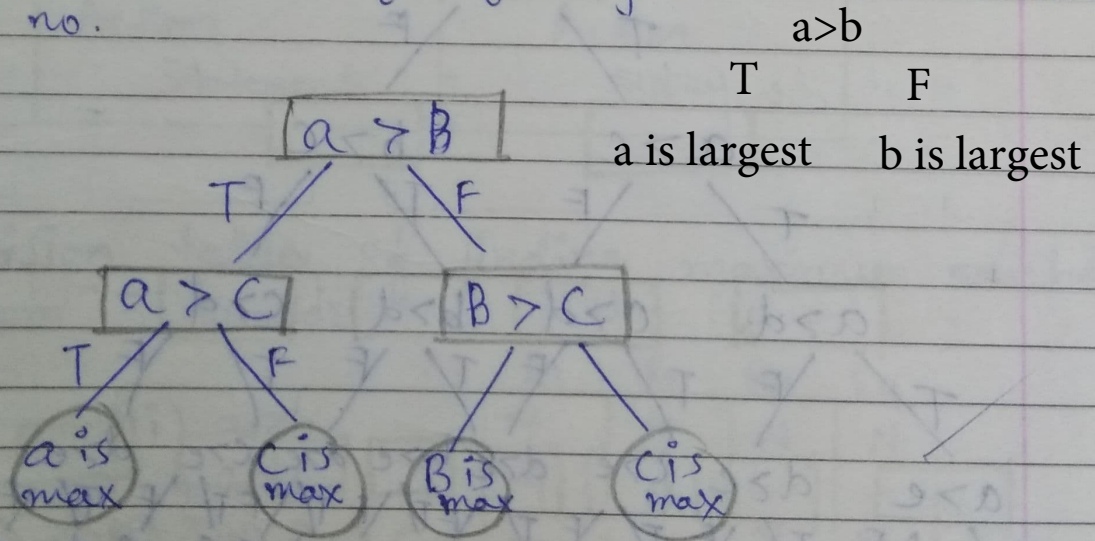
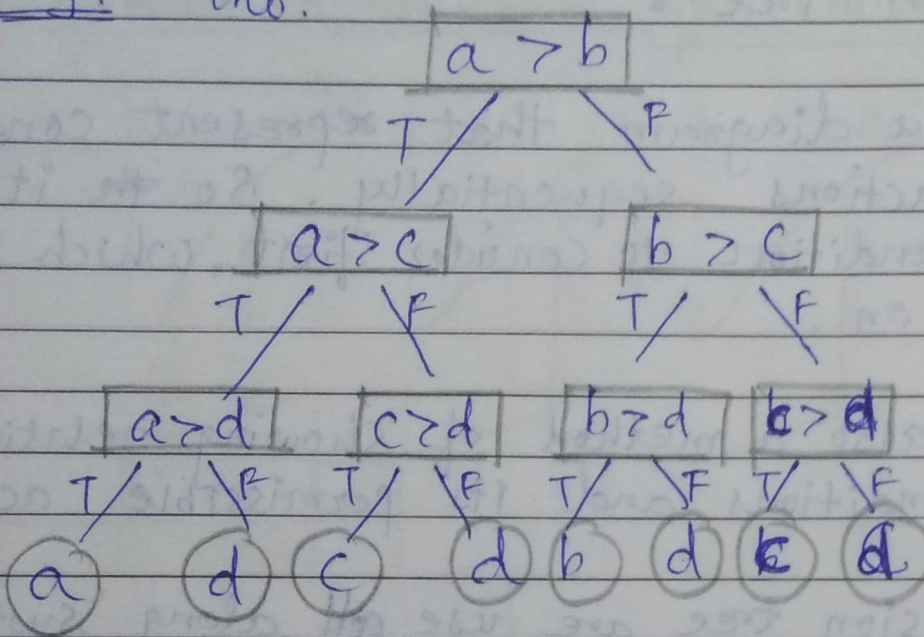


* Decision Tree :

- It is a diagram that represent condition and actions sequentially. So ~~the~~ it show which condition to consider first, which second and so on...
- It is also a method of showing relationship of each conditions and its permissible action.
- If decision tree are use ~~all~~ along system analyst must be certain to identify each data element require to make a decision.
- eg: Decision tree for finding maximum number from 3 no.



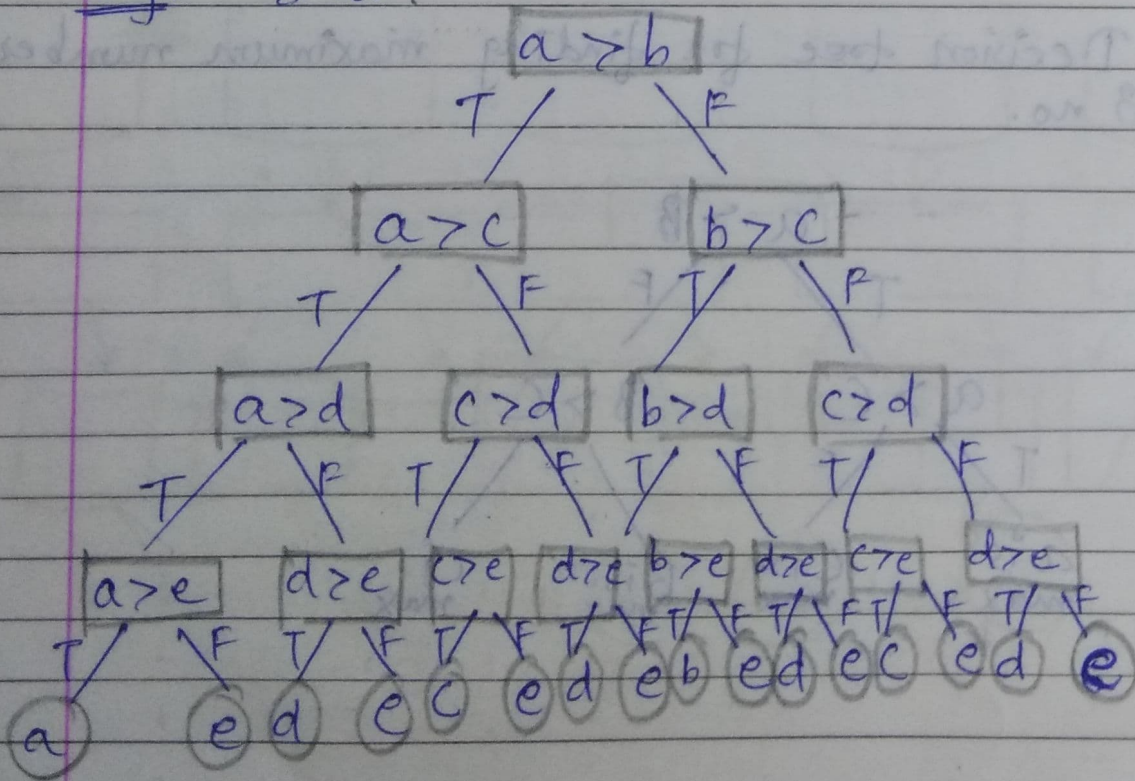
eg. 4 no.



a > b
a > c
a > d
b > c
b > d
c > d

a is largest
b is largest
c is largest
d is largest

eg. 5 no.



- For a complex system with many sequence of steps and combination of conditions, it is very difficult.

* Decision Table:

- It is a matrix of row & column rather than tree that show conditions & action statement.
- General format of decision table is as follow:

Condition Statement	Condition entry
Action Statement	Action entry

- Decision table of finding maximum number from 3 number

	R ₁	R ₂	R ₃	R ₄
i) $a > b$	Y	Y	N	N
ii) $a > c$	Y	N	-	-
iii) $b > c$	-	-	Y	N
i) a is max	X	-	-	-
ii) c is max	-	X	X	X
iii) b is max	-	X	X	X

Decision table for finding 4 no.

	R ₁	R ₂	R ₃	R ₄	R ₅	R ₆	R ₇	R ₈
i) $a > b$	Y	Y	Y	Y	N	N	N	N
ii) $a > c$	Y	Y	N	N	-	-	-	-
iii) $b > c$	-	-	-	N	Y	Y	N	N
iv) $a > d$	Y	N	-	-	-	-	-	-
v) $c > d$	-	-	Y	-	-	-	-	-
vi) $b > d$	-	-	-	-	Y	N	-	-
vii) $c > a$	-	-	-	-	-	-	Y	N

Condition

i) a is max

ii) b is max

iii) c is max

iv) d is max

~~v) c is max~~

X	-	-	-	-	-	-	-
-	-	-	-	X	-	-	-
-	-	X	-	-	-	X	-
-	X	-	X	-	X	-	X
•	•	•	•	•	•	•	•

Decision table of finding maximum from 3 numbers

R ₁	R ₂	R ₃	R ₄
Y	Y	Y	Y
-	-	Y	Y
Y	Y	-	-

i) $a > b$

ii) $a > c$

iii) $b > c$

i) a is max

ii) c is max

iii) b is max

→ Decision table for finding 5 no.

Condition	R ₁	R ₂	R ₃	R ₄	R ₅	R ₆	R ₇	R ₈	R ₉	R ₁₀	R ₁₁	R ₁₂	R ₁₃	R ₁₄	R ₁₅	R ₁₆
i) $a > b$	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N
ii) $a > c$	Y	Y	Y	Y	N	N	N	N	-	-	-	-	-	-	-	-
iii) $a > d$	Y	Y	Y	Y	-	Y	-	-	-	-	-	-	-	-	-	-
iv) $a > e$	Y	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-
v) $c > d$	-	-	-	-	Y	Y	N	N	-	-	-	Y	Y	N	-	-
vi) $d > e$	-	-	Y	N	-	-	Y	N	-	-	Y	-	-	-	-	-
vii) $c > e$	-	-	-	-	Y	N	-	-	-	-	-	Y	N	-	-	-
viii) $b > e$	-	-	-	-	-	-	-	-	Y	Y	Y	N	N	N	-	-
ix) $b > d$	-	-	-	-	-	-	-	-	Y	Y	N	-	-	-	-	-
x) $b > e$	-	-	-	-	-	-	-	-	Y	N	-	-	-	-	-	-

i) a is max	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ii) b is max	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-
iii) c is max	-	-	-	-	X	-	-	-	-	-	-	X	-	-	-	-
iv) d is max	-	-	X	-	-	-	X	-	-	-	X	-	-	-	-	-
v) e is max	-	X	-	X	-	X	-	X	-	X	-	-	X	-	-	-